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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,699	05/27/2005	Masato Doi	112857-470	8615
29175 7590 10/26/2007 BELL, BOYD & LLOYD, LLP P. O. BOX 1135 CHICAGO, IL 60690			EXAMINER MCCLELLAND, KIMBERLY KEIL	
			ART UNIT 1791	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/511,699	<b>Applicant(s)</b> DOI ET AL.	
	<b>Examiner</b> Kimberly K. McClelland	<b>Art Unit</b> 1791	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 36 and 38-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 36 and 38-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/30/07</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 7/30/07 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because a concise explanation of the relevance, as it is presently understood by the individual designated in § 1.56(c) most knowledgeable about the content of the information, of each patent, publication, or other information listed that is not in the English language. If an item of information in an IDS fails to comply with all the requirements of 37 CFR 1.97 and 37 CFR 1.98, that item of information in the IDS will not be considered and a line should be drawn through the citation to show that it has not been considered. However, other items of information that do comply with all the requirements of 37 CFR 1.97 and 37 CFR 1.98 will be considered by the examiner. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Response to Amendment***

2. Applicant is reminded they need to explicitly point out where support for all the newly claimed features comes from as required by MPEP 714.02 and 2163.06. See 37 CFR 1.111.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 39-46 and 51 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The phrase, "hardening the uncured pressure sensitive adhesive layer to form a pressure sensitive adhesive" in independent claims 39 and 41 constitutes new matter. To the contrary, the current specification discloses the pressure sensitive adhesive layer is formed by spin coating (See page 20, lines 7-11). Claims 40, 42-46, and 51 are rejected due to their dependency on independent claims 39 and 51.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 39-46 and 51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how the curing step of claims 39 and 41 can form a pressure sensitive adhesive layer. The curing step hardens the

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adhesive layer, removing the adhesive tack and bonding ability of the material.

Clarification is required. Claims 40, 42-46, and 51 are rejected due to their dependency on independent claims 39 and 51.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 39-46 and 51 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent Application Publication No. 2003/0227253 to Seo et al.

9. With respect to claim 39, Seo et al. discloses a display device, including one-side and other-side devices (i.e. pixel; See paragraph 0015), with a hardened insulating layer (603), which has holes filled with conductive material (602) to form second electric wirings. The first wirings (606) along with the third substrate (608) are located on the opposite side of the device layer (605; See Figure 6B). The process steps of embedding devices, curing the pressure sensitive adhesive, transferring one-side and other-side devices, along with removing the first and second substrate layers is not found to impart significant structural changes to the claimed product. If there is any structural difference, the difference would have been minor or obvious.

10. As to claim 40, Seo et al. discloses driving by impressing a voltage on the devices through the first electric wirings and the second electric wirings (See paragraph 0016).

11. As to claim 41, Seo et al. discloses a display device, including one-side and other-side devices (i.e. pixel; See paragraph 0015), with a hardened insulating layer (603), which has holes filled with conductive material (602) to form second electric wirings. The first wirings (606) along with the third substrate (608) are located on the opposite side of the device layer (605; See Figure 6B). The process steps of embedding devices, curing the pressure sensitive adhesive, transferring one-side and other-side devices, along with removing the first and second substrate layers is not found to impart significant structural changes to the claimed product. If there is any structural difference, the difference would have been minor or obvious.

12. As to claim 42, Seo et al. discloses one-side devices different from other side devices (See paragraph 0015).

13. As to claim 43, Seo et al. discloses one side devices and other-side devices are held in an embedded state on different areas of the substrate (See Figure 5B).

14. As to claim 44, Seo et al. discloses display is carried out through simple matrix driving by impressing a voltage on the devices through the first electric wirings and the second electric wirings (See paragraph 0016).

15. As to claim 45, Seo et al. discloses the one-side and other-side devices are any one of display devices and driving circuits (See paragraph 0015).

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16. As to claim 46, Seo et al. discloses display is carried out through active matrix driving by impressing a voltage on the display devices by the driving circuit devices. (See paragraph 0016).

17. As to claim 51, Seo et al. discloses a display device, including one-side and other-side devices (i.e. pixel; See paragraph 0015), with a hardened insulating layer (603), which has holes filled with conductive material (602) to form second electric wirings. The first wirings (606) along with the third substrate (608) are located on the opposite side of the device layer (605; See Figure 6B). The process step of curing the pressure sensitive adhesive is not found to impart significant structural changes to the claimed product. If there is any structural difference, the difference would have been minor or obvious.

18. Claims 39, 41-43, 45, and 51 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over PCT Publication No. WO02/084631 as evidenced by corresponding U.S. Patent No. 6,872,635 to Hayashi et al.

19. With respect to claim 39, Hayashi et al. discloses a display device, including one-side and other-side devices (42/62) with a hardened adhesive layer (45), which has holes filled with conductive material (49) to form second electric wirings. The first wirings (46) along with the third substrate (47) are located on the opposite side of the device layer (42/62; See Figure 12). The process steps of embedding devices, curing the pressure sensitive adhesive, transferring one-side and other-side devices, along

with removing the first and second substrate layers is not found to impart significant structural changes to the claimed product. If there is any structural difference, the difference would have been minor or obvious.

20. With respect to claim 39, Hayashi et al. discloses a display device, including one-side and other-side devices (42/62) with a hardened adhesive layer (45), which has holes filled with conductive material (49) to form second electric wirings. The first wirings (46) along with the third substrate (47) are located on the opposite side of the device layer (42/62; See Figure 12). The process steps of embedding devices, curing the pressure sensitive adhesive, transferring one-side and other-side devices, along with removing the first and second substrate layers is not found to impart significant structural changes to the claimed product. If there is any structural difference, the difference would have been minor or obvious.

21. As to claim 42, Hayashi et al. discloses one-side devices different from other side devices (See paragraph 0170).

22. As to claim 43, Hayashi et al. discloses one side devices and other-side devices are held in an embedded state on different areas of the substrate (See Figure 16).

23. As to claim 45, Hayashi et al. discloses the one-side and other-side devices are any one of display devices and driving circuits (See paragraph 0170).

24. As to claim 51, Hayashi et al. discloses a display device, including one-side and other-side devices (42/62) with a hardened adhesive layer (45), which has holes filled with conductive material (49) to form second electric wirings. The first wirings (46) along with the third substrate (47) are located on the opposite side of the device layer



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(42/62; See Figure 12). The process step of curing the pressure sensitive adhesive is not found to impart significant structural changes to the claimed product. If there is any structural difference, the difference would have been minor or obvious.

25. Claims 36, 38-39, 41-43, and 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over PCT Publication No. WO02/084631 as evidenced by corresponding U.S. Patent No. 6,872,635 to Hayashi et al. in view of U.S. Patent No. 5,426,342 to Nakamura et al.

26. With respect to claim 36, Hayashi et al. discloses embedding one-side devices (8) into an adhesive layer (7) provided on a second substrate (6); embedding other-side devices (3) arranged on a first substrate into an uncured adhesive layer (7) provided on a second substrate(6) where one-side devices (8) are embedded in the adhesive layer; and the one-side devices and the other-side devices have different characteristics (See paragraph 0126); and stripping the other-side devices from the first substrate thereby holding the other-side devices in an embedded states in the uncured adhesive layer (See Figure 2A-2F) wherein the other-side devices and one-side devices are light emitting diodes (See paragraph 0170). Hayashi et al. discloses stripping the first substrate prior to cooling the adhesive to room temperature, when the adhesive is cured completely (See paragraph 0226), which meets applicant's claimed language of stripping the other-side devices from the first substrate thereby holding the other-side devices in an embedded states in the uncured adhesive layer. However, Hayashi et al. does not disclose using pressure sensitive adhesive.

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27. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53).

28. As to claim 38, Hayashi et al. discloses the one-side (8) devices and the other-side devices (3a) are held in the embedded state in different areas on the substrate (See Figure 2D).

29. As to claim 39, Hayashi et al. discloses embedding devices (42) arranged on a first substrate (41) into an uncured adhesive layer (45) provided on a second substrate (43, See Figure 10) wherein the devices are light emitting diodes (See paragraph 0170); stripping the devices from the first substrate thereby holding the devices in an embedded state in the uncured adhesive layer (See Figure 11), and hardening the uncured adhesive layer to form an adhesive (See paragraph 0226); forming first electric wirings (46) on the adhesive layer, adhering a third substrate (47) onto a side on which the first electric wirings are formed of the adhesive layer, and stripping the second substrate and the adhesive layer from each other (See Figure 12); and providing adhesive layer with openings (65, See Figure 16) reaching the devices, filling the openings with a conductive material (49), and forming second electric wirings (63, 64) on the adhesive layer. Hayashi et al. discloses stripping the first substrate prior to

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cooling the adhesive to room temperature, when the adhesive is cured completely (See paragraph 0226), which meets applicant's claimed language of stripping the other-side devices from the first substrate thereby holding the other-side devices in an embedded states in the uncured adhesive layer. However, Hayashi et al. does not disclose using pressure sensitive adhesive.

30. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53).

31. As to claim 41, Hayashi et al. discloses embedding one-side devices (42) arranged on a first substrate (41) into an uncured adhesive layer (45) provided on a second substrate (43, See Figure 10), and stripping the one-side devices from the first substrate thereby holding the one-side devices in an embedded state in the uncured adhesive layer (See Figure 11); further embedding other-side devices arranged on the first substrate into the uncured adhesive layer (See paragraph 0170), and stripping the other-side devices from the first substrate thereby holding the other-side devices (62) in an embedded state in the uncured adhesive layer (See paragraph 0226), where the one-side devices are embedded in the adhesive layer wherein the one-side devices and the other side devices are light emitting diodes (See paragraph 0170); hardening the

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uncured adhesive layer to form an adhesive layer where the one-side devices and the other-side devices are held in the embedded state in the uncured adhesive layer (See paragraph 0157); forming first electric wirings on the adhesive layer (46), adhering a third substrate (47) onto the side on which the first electric wirings are formed of the adhesive layer, and stripping the second substrate and the adhesive layer from each other (See Figure 12); and providing the adhesive layer with openings reaching the one-side devices or the other-side devices, filling the openings with a conductive material (49), and forming second electric wirings on the adhesive layer (63, 64, See Figure 16). Hayashi et al. discloses stripping the first substrate prior to cooling the adhesive to room temperature, when the adhesive is cured completely (See paragraph 0226), which meets applicant's claimed language of stripping the other-side devices from the first substrate thereby holding the other-side devices in an embedded states in the uncured adhesive layer. However, Hayashi et al. does not disclose using pressure sensitive adhesive.

32. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been

obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 41.

33. As to claim 42, Hayashi et al. discloses the one-side devices and the other-side devices have different characteristics (See paragraph 0170).

34. As to claim 43, Hayashi et al. discloses one-side devices and the other-side devices are held in the embedded state in different areas on the second substrate (See Figure 16).

35. As to claim 47, Hayashi et al. discloses bringing the other side devices into contact with a temporary adhesion layer provided on the first substrate for temporarily adhering the other side devices to the temporary adhesion layer thereby arranging the devices on the first substrate, before embedding the other-side devices into the uncured adhesive layer provided on the second substrate (See Figure 2A). However, Hayashi et al. does not disclose using pressure sensitive adhesive.

36. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53).

37. As to claim 48, Hayashi et al. discloses a tack of the pressure sensitive adhesive layer provided on the second substrate is greater than a tack of the temporary adhesion

layer provided on the first substrate, as shown by the transfer of devices from the temporary adhesion layer to the adhesive layer (See Figures 10-11). However, Hayashi et al. does not disclose using pressure sensitive adhesive.

38. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53).

39. As to claim 49, Hayashi et al. discloses tack of at least one of the uncured adhesive layer and the temporary adhesion layer is changed so that the tack of the uncured adhesive layer will be greater than the tack of the temporary adhesion layer (i.e. thermally cure; See paragraph 0187). However, Hayashi et al. does not disclose using pressure sensitive adhesive.

40. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53).

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41. As to claim 50, Hayashi et al. discloses curing the uncured adhesive layer using a heating treatment (i.e. thermosetting; See paragraph 0187). However, Hayashi et al. does not disclose using pressure sensitive adhesive.

42. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53).

43. As to claim 51, Hayashi et al. discloses the uncured adhesive layer is hardened after stripping the devices from the first substrate (i.e. "certainly fixed"; See paragraph 0226). However, Hayashi et al. does not disclose using pressure sensitive adhesive.

44. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53).

45. Claims 40 and 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over PCT Publication No. WO02/084631 as evidenced by corresponding U.S. Patent No. 6,872,635 to Hayashi et al. in view of U.S. Patent No. 5,426,342 to Nakamura et al. as applied to claims 36, 38-39, 41-43, and 47-51 above, and further in view of U.S. Patent Application Publication No. 2003/0227253 to Seo et al.

46. With respect to claim 40, Hayashi et al. discloses an element transfer method, including using light emitting devices as elements (See paragraph 0170). Nakamura et al. discloses the use of a pressure and heat sensitive adhesive to adhere the elements to a substrate. However, Hayashi et al. and Nakamura et al. do not disclose driving methods.

47. Seo et al. discloses display is carried out through simple matrix driving by impressing a voltage on the devices through the first electric wirings and the second electric wirings (See paragraph 0016). It would have been obvious to one of ordinary skill in the art to combine the driving method of Seo et al. with the element transfer method, disclosed by Hayashi et al. and the pressure sensitive adhesive taught by Nakamura et al. The motivation would have been to cause electroluminescence (Seo et al., See paragraph 0051).

48. As to claim 44, Hayashi et al. discloses an element transfer method, including using light emitting devices as elements (See paragraph 0170). Nakamura et al. discloses the use of a pressure and heat sensitive adhesive to adhere the elements to a substrate. However, Hayashi et al. and Nakamura et al. do not disclose driving methods.



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49. Seo et al. discloses display is carried out through simple matrix driving by impressing a voltage on the devices through the first electric wirings and the second electric wirings (See paragraph 0016). It would have been obvious to one of ordinary skill in the art to combine the driving method of Seo et al. with the element transfer method, disclosed by Hayashi et al. and the pressure sensitive adhesive taught by Nakamura et al. The motivation would have been to cause electroluminescence (Seo et al., See paragraph 0051).

50. As to claim 45, Hayashi et al. discloses one of the one-side devices and the other-side devices are any one of display devices and driving circuit devices (see paragraph 0170).

51. As to claim 46, Hayashi et al. discloses an element transfer method, including using light emitting devices as elements (See paragraph 0170). Nakamura et al. discloses the use of a pressure and heat sensitive adhesive to adhere the elements to a substrate. However, Hayashi et al. and Nakamura et al. do not disclose driving methods.

52. Seo et al. discloses display is carried out through active matrix driving by impressing a voltage on the display devices by the driving circuit devices. (See paragraph 0016). It would have been obvious to one of ordinary skill in the art to combine the driving method of Seo et al. with the element transfer method, disclosed by Hayashi et al. and the pressure sensitive adhesive taught by Nakamura et al. The motivation would have been to allow for drive at a low voltage (Seo et al., See paragraph 0052).

***Response to Arguments***

53. In response to the current amendment, the rejection of claims 47-50 under 35 U.S.C. 112 has been withdrawn. However, new rejections have been made.

54. Applicant's arguments filed 8/30/07 have been fully considered but they are not persuasive.

55. As to applicant's arguments against claims 39-46 and 51, examiner disagrees. These claims contain product-by-process limitations where product claims are examined according to the structural limitations of the claim and process steps. The structural limitations provided by the product-by-process limitations have been considered with respect to Hayashi and Seo. The newly introduced claim limitations do not structurally distinguish the currently claimed invention over the prior art of record. There is no structural difference between the currently claimed invention and Hayashi and Seo. Consequently, the claims remain rejected under 35 U.S.C. 102 or, in the alternative, under 35 U.S.C. 103 under Hayashi and Seo.

56. As to applicant's arguments that Hayashi does not disclose "embedding", examiner disagrees. During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." The Federal Circuit's en banc decision in *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005). An applicant is entitled to be his or her own lexicographer and may rebut the presumption that claim terms are to be given their ordinary and customary meaning by clearly setting forth a definition of the term that is different from its ordinary

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and customary meaning(s). See *In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994). The Merriam Webster Online Dictionary defines the term "embed" as "a: to enclose closely in or as if in a matrix <fossils *embedded* in stone> b: to make something an integral part of <the prejudices *embedded* in our language>".

Applicant has provided no alternative definition in the current specification.

Consequently, the term must be defined as used by one of ordinary skill in the art.. After pressing, the adhesive of Hayashi is made integral with the devices, meeting the requirements of the limitation "embedding". Therefore, the "fixing" step disclosed by Hayashi meets applicant's claimed "embedding" step.

57. As to applicant's argument that Hayashi does not disclose stripping the other-side devices from the substrate thereby holding the other-side devices in an embedded state in the uncured pressure sensitive adhesive layer, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Nakamura is relied upon to teach pressure sensitive adhesives. Furthermore, the disclosure of Hayashi of cooling the adhesive layer to room temperature after stripping the substrate in order to be "certainly fixed" (i.e. hardened) the adhesive layer meets applicant's claimed limitation of stripping the other-side devices from the substrate thereby holding the other-side devices in an embedded state in the uncured adhesive layer (See Hayashi, paragraph 0226). As a result of this disclosure, applicant's arguments are not persuasive, and the current rejections are maintained.

***Conclusion***

58. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly K. McClelland whose telephone number is (571) 272-2372. The examiner can normally be reached on 8:00 a.m.-5 p.m. Mon-Fri..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip C. Tucker can be reached on (571)272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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